

**Minutes of the Carlisle Board of Health
April 12, 2016**

<p>Bills Administrative Reports Horsley-Witten Groundwater Study - discussion Proposed Site Plan Review Bylaw DISCUSSION ITEMS Administrative Assistant Position Rabies Clinic Report Housing Survey 15.240(7) – Driveways over leaching areas Recycling Dividends Program</p>

The meeting was called to order by the Chairman at 7:00 pm at Carlisle Town Hall. Present were Board members Bill Risso (Chairman), Lee Storrs, Catherine Galligan, Todd Thorsen and Donna Margolies. Also present Linda Fantasia (Health Agent), Alex Brewster (Carlisle Mosquito), Rob Frado (TCG) and Steve Hinton (Water Quality Subcommittee).

BILLS – March engineering invoice; semi-annual food inspection invoice from Phelps Food Service Consultant, and Help Wanted Ad invoice from the Carlisle Mosquito.

It was moved (Galligan) and seconded (Margolies) to approve payment of the bills. Motion passed 5-0-0.

MINUTES

ADMINISTRATIVE REPORTS

“Ticks and Mosquitoes from A – Z (Anaplasmosis to Zika); the Middlesex Tick Task Force is sponsoring this event to be held on May 12th, 7-9 Bedford Town Hall; towns have agreed to share the \$200 speaker gratuity.

Well Testing – The cost for all tests is \$400. ETR recommends offering their standard scan which includes more tests than the Board’s selection. They reduced the sampling fee to \$25/household. The testing will be advertised in the Mosquito. Forms are available on the town’s website.

CHNA 15 Grant Application – The Board is applying for a CHNA grant to do a community health assessment. The Council on Aging and Gleason Library agreed to be key collaborators; the Police Chief, Recreation Director and two Selectmen are interested in helping with the project if funded. The application is due 4/29/16.

Ongoing Projects:

Irrigation Policy – The Board agreed to reconsider its proposed irrigation policy using the 9” recharge rate proposed by a number of consultants. Galligan will revise the narrative and calculations.

Geothermal Wells – The application process needs more work. The Board agreed to consider prohibiting open loop geothermal wells. Most requests are for closed loop wells which pose less risk to the environment and water supply. An owner could always apply to install an open loop well through a variance process.

Plan Submittals – The Board wants all plans submitted electronically (such as PDF) as well as paper copies to protect the permanent record. Hand-drawn plans should be of professional quality, neat, legible and to scale.

HORSLEY-WITTEN GROUNDWATER STUDY

The Board had asked Rob Frado (Technical Consulting Group) to attend the meeting to discuss his thoughts on the proposed model for siting a leaching field up gradient of a well. Frado said the science behind the proposal seems reasonable. Just as a larger leaching area provides additional treatment, increasing the setback between the

treatment area and well is valid. He would be concerned that some existing properties that need to replace a failed system could not meet the model which calls for a setback 600' by 50'. Frado was concerned about meeting the setback on a minimum two acre lot. The setback might project onto an adjacent lot preventing certain activities on that lot. This could be considered an easement on the abutting property. Carlisle lots have many challenges including lot configuration and wetlands. Hinton agreed and suggested a less aggressive setback as more reasonable. Frado also noted that the study used certain assumptions to determine groundwater flow – perpendicular to contour lines and following the natural landscape slope. To really determine groundwater flow direction would require a hydrogeological study. The Board said it is not uncommon for other permits, such Title 5 well and septic setbacks, to impact activities on an adjacent lot. Risso was concerned that the 50' strip in the model does not account for rainwater dilution.

Hinton had researched the average number of occupants in a Carlisle household from the voter registration database. The result was three people on average which is the same number used in Horsley's model. There are approximately 1725 households in town and there have been no water quality issues. This might justify limiting the model to larger systems with more flows. Galligan questioned what the town would do if a well became contaminated since there is no back up water supply available. There could be major financial and environmental consequences both on the owner and the town. Frado said filtering out nitrates is possible but expensive. It would not be a preferred course of action. The Board noted that the Library recently had a problem with an excess of nitrates in the well water. The Library is working with its certified well operator and DEP to resolve the problem. Frado suggested checking on whether the Library applied fertilizer to the lawn around the well. No other sources have been identified. Storrs said the only way to check groundwater flow direction at the Library would be to install monitoring wells. This might possibly identify the flow direction of the nitrates.

The Board discussed imposing the model on large systems (≥ 2000 gpd) or when multi families are located on a single lot. Fantasia pointed out that Conservation Clusters, which are encouraged by the town, typically congregate septic systems and wells close together in order to preserve open space. Hinton said the model provides a framework for the Board's regulations which could be helpful to the Zoning Board of Appeals. It may not cover every application, but it is based on rational assumptions. Frado suggested that the Board could prohibit placing a well down gradient of a system as reasonable regulation. Galligan was concerned that this might make a lot unbuildable. Gambino (present for a later discussion item) said the Planning Board must follow Board of Health regulations in reviewing developments that require special permits or waivers. This is not the case in a By-Right subdivision although the Board of Health will still do its own review. Risso said the Board of Health generally requires more detail in order to make an informed decision but this might happen too late in the process or post-Planning Board decision. Thorsen said late design changes can have a domino effect on the overall design and should be avoided if possible. Storrs thought it was important subdivisions be designed for sustainability not marketability. This is often not the case. Thorsen agreed that more detail at the subdivision planning level is important. Risso felt the Board should continue to consider other options that might be more practical than the proposed model. Frado questioned how the Board would justify reducing the model setback other than convenience. Thorsen agreed noting that reducing the setback from 600' to 300' might be more practical but would need some supporting data. He questioned whether there was any proof that a greater setback was necessary since there have not been any outbreaks of nitrate contaminated wells in town. Risso said there is only limited well testing data and it has not been collated. Hinton felt the Board had sufficient data to categorize the soils in Carlisle and was using reasonable assumptions (3 persons per household) to support certain conditions. Hinton said that larger systems, for example a six bedroom house, may still only have three people in occupancy. The size of the system does not necessarily correlate to the amount of nitrates going into the ground. Frado said he always preferred a larger treatment area such as requiring the 165 gpd additional capacity for garbage grinders.

SITE PLAN REVIEW BYLAW CHANGE – Peter Gambino appeared before the Board to explain the purpose behind the proposed bylaw change. Gambino said that Carlisle is unique in its approval process but it is cumbersome and confusing. Selectmen are the approving authority but Planning Board is responsible for gathering data and preparing recommendations. The Selectmen deal with administration whereas the Planning Board deals with land use. The Selectmen hold public hearings but the Planning Board does not so interested parties are not notified of Planning Board meetings. This shared process is repetitive and difficult for abutters to follow and can result in outcomes that do not necessarily fall within intent and purpose of Site Plan Review. The bylaw change would make the Planning Board the approving authority for Site Plan Review applications. This is how it is done in

90% of other communities. The process would consolidate data gathering, public hearings, deliberations and decision into a single straight forward process. Gambino provided a flow chart comparing the current process to the proposed. Galligan suggested requiring electronic copies as part of the process. Gambino noted that the proposed bylaw change also fixes an error in the appeal process. The Selectmen would still be involved in any town project that requires Site Plan Review. The role of the Board of Health to provide comments on water supply and waste water treatment would not change, nor the timelines.

The Board agreed that the proposed bylaw change would be an improvement and since it did not change the Board of Health's role, the Board had no reason to object.

DISCUSSION ITEMS

Benfield Farms Testing Results - Mike Moreau of Waste Treatment Services (WTS) sent the Board an email with the latest test results. The results continue to show improved nitrification with one exception. Moreau said they are monitoring the carbon feed to prevent over feeding the system which results in high BOD and TSS. He felt the optimum chemical feed is somewhere between 70% to 80% of maximum pump speed. The length of the feed line causes even small adjustments to have dramatic effect. They are constantly adjusting the system. The quarterly testing of the monitoring wells was done on March 3rd. Total nitrate was 14.6 mg/l which is within town and state limits. The Board agreed that it is important to know the results in the field, not just in the treatment unit. The test results are not yet available from the lab. WTS is testing the FAST influent and effluent on a weekly basis. On a recent visit Risso had noticed some odors around the manhole cover. He was surprised this was happening since the newly installed fan in the line should pull air away from the manhole. The Board discussed whether it would be a good idea to take some readings of the air pressure. Risso was also concerned that the wood chips over the underground vent are too small and may interfere with its functioning if they become compacted. NOAH will be looking into this.

Installer Meeting – The Board asked Frado to comment on the meeting. Frado thought it was a good meeting and agreed with the installers' comments from the meeting. He is not experiencing any problems in the field or complaints. The number of inspections has been reduced from four to three. Plans are filed as PDF's which shorten the response time. Installers have adjusted well to the new schedule. Frado was surprised that only two installers attended. He would be willing to consider adding a second inspection day if the Board feels it is warranted. The Board agreed to table any action at this time.

Gleason Library Water Supply – Small Water Systems & Services (SWSS) submitted the latest nitrate results of 8.2 mg/l. Previous results were 11.7, 11.3 and 9.8 mg/l. The Board agreed the results were improving. SWSS also submitted their response actions sent to DEP. The Board agreed that the situation was under control.

Driveways over Leaching Areas 310 CMR 15.240(7) – Other Boards of Health have allowed paved driveways over leaching areas as long as they were rated for heavy loading and vented. The Title 5 Code however states that this should be allowed only where restrictions on the land make it unavoidable. A recent septic redesign relocated the leaching area under a paved driveway without any explanation. The Board agreed that the applicant must demonstrate that there is no other practical location. The design engineer will be advised. The Board agreed to enforce the above regulation. Fantasia and Frado will decide whether placing a paved driveway over the leaching area is unavoidable when reviewing requests.

Administrative Assistant Position – Judy Hodges is interested in the position. She will cover for Bobby Lyman and then resume the position on April 30 through June 30th. She is interested in the permanent part-time position which will start July 1st. Fantasia will notify the other candidates and ask if they are interested in the permanent part time position.

It was moved (Galligan) and seconded (Margolies) to offer the temporary administrative assistant position from April 1st through June 30th to Judy Hodges. Motion passed 5-0-0.

Housing Survey – The Board reviewed the draft survey prepared by Stephanie Moore, the Board's winter intern. Moore will send out the survey to local multi-housing facilities. She will then prepare educational materials on what not to dispose of in a septic system, particularly household cleaners and personal care products.

Recycling Dividends Program - Carlisle is eligible to participate in the program which provides a reciprocal hazardous waste collection program with other communities. Carlisle would be required to accept residents from member communities and Carlisle residents would be able to go to collections in other communities. Non-residents would pay a fee. Carlisle's annual collection is free to residents with a sticker. Residents have the option of going to the Minuteman Facility at other times but must pay a fee. The Board noted that Carlisle's collection is run by volunteers and staffing can be difficult. There would also be additional costs to the contractor and collecting fees would take time. The town would only receive \$400 in grant money if it were to join. The Board did not think the program would be of significant benefit.

Rabies Clinic – the clinic was held on 4/9/16. Fantasia will prepare an accounting report for the next meeting.

Meeting Schedule – the Board discussed adding a meeting prior to the election. No decision was made. The next meeting will be 5/3/16.

There was no further business. Meeting voted to adjourn at 9:05 p.m.

Respectfully submitted,

Linda M. Fantasia
Recorder